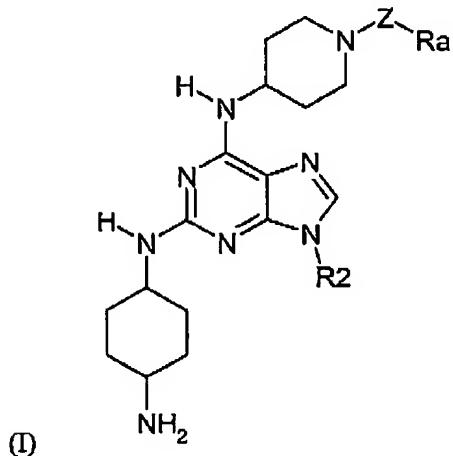


In the Claims:

Please add and amend the claims as shown in the following amended listing of claims:

CLAIMS:

1. (Currently amended) A compound according to the formula (I)



wherein Z is selected from the group consisting of $-\text{S}(\text{O})_2-$ and $-\text{C}(\text{O})-$,

when Z is $-\text{S}(\text{O})_2-$, R_a is selected from the group consisting of: $-\text{R}_1$ and $-\text{N}(\text{R}_1)(\text{R}_3)$, or

when Z is $-\text{C}(\text{O})-$, R_a is selected from the group consisting of: $-\text{R}_1$, $-\text{OR}_1$, $-\text{N}(\text{R}_1)(\text{R}_3)$ and $-\text{SR}_1$,

where R_1 is selected from the group consisting of:

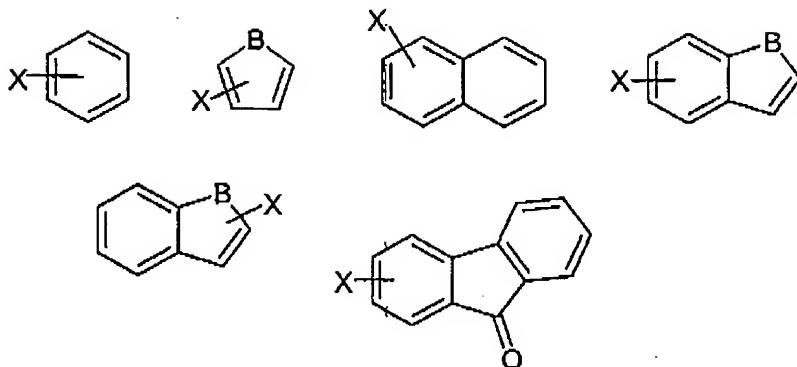
$-\text{C}_1-\text{C}_{11}$ alkyl, wherein each carbon may be optionally substituted with one, two or three X substituents,

$-\text{C}_3-\text{C}_{10}$ cycloalkyl, wherein each carbon may be optionally substituted with one or two X substituents,

$-(\text{CH}_2)_n\text{Q}_p(\text{CH}_2)_n\text{W}$, and

$-(\text{CH}_2)_n\text{CHW}_2$;

wherein each carbon of $-(\text{CH}_2)_n-$ may be optionally substituted with one or two X substituents, Q is O , S , or NR_3 , n is independently an integer 0-6, p is independently an integer 0 or 1, and W is independently selected from the group consisting of hydrogen, C_3-C_{10} cycloalkyl, $-(\text{C}_3-\text{C}_{10}$ cycloalkyl)-aromatic, and one of the following aromatic or heteroaromatic rings:



where B is selected from the group consisting of: -O-, -S-, -NR₆-; where each carbon of the aromatic or heteroaromatic ring may be independently substituted by a nitrogen atom, and each carbon of the aromatic ring may be independently substituted with an X substituent;

where each X substituent is independently selected from the group consisting of: hydrogen, halogen, methylenedioxy, -C₁-C₈ alkyl alkylene, -C₃-C₁₀ cycloalkyl, substituted or unsubstituted phenyl, -C₁-C₈ alkoxy, -SR₃, -OH, =O, -CY₃, -OCY₃, -CO₂R₃, -CN, -CO-NR₄R₅, -NO₂, -COR₃, -NR₄R₅, -NH-C(O)-R₃, -NH-C(O)-(C₁-C₆ alkyl alkylene)-aromatic, and -NH-C(O)-(C₁-C₆ alkyl alkylene)-heteroaromatic;

where phenyl is substituted with one to five substituents independently selected from the group consisting of hydrogen, halogen, methylenedioxy, -C₁-C₈ alkyl alkylene, -C₃-C₁₀ cycloalkyl, -C₁-C₈ alkoxy, -OH, -CY₃, -OCY₃, -CO₂R₃, -CN, -NO₂, -COR₃, -SR₃, and -NH-C(O)-R₃;

where each Y is independently selected from the group consisting of hydrogen and halogen;

where each R₃ is independently selected from the group consisting of hydrogen, and C₁-C₈ alkyl alkylene, where C₁-C₈ alkyl alkylene may be straight or branched, saturated or unsaturated;

where each R₄ and R₅ is independently selected from the group consisting of hydrogen, and C₁-C₆ alkyl alkylene, where C₁-C₆ alkyl alkylene may be straight or branched, saturated or unsaturated, where which each carbon of C₁-C₆ alkyl alkylene is optionally substituted with a hydrogen, halogen,

methylenedioxy, -C₁-C₈ alkylene, -C₃-C₁₀ cycloalkyl, substituted or unsubstituted phenyl, -C₁-C₃ alkoxy, -SR₃, -OH, =O, -CY₃, -OCY₃, -CO₂R₃, -CN, -NO₂, -COR₃, -NH-C(O)-R₃, -NH-C(O)-(C₁-C₆ alkylene)-aromatic, or -NH-C(O)-(C₁-C₆ alkylene)-heteroaromatic an X substituent, or where R₄ and R₅ taken together with the nitrogen to which they are attached, form a heterocyclic ring of three to seven atoms including the nitrogen atom;

where -NR₆- is selected from the group consisting of an unsubstituted N, an N substituted with -hydrogen, -(C₁-C₆ alkylene), -C₃-C₁₀ cycloalkyl, -S(O)₂-(C₁-C₆ alkylene), -S(O)₂-(C₃-C₁₀ cycloalkyl), -C(O)R₃, -C(O)-(C₁-C₆ alkylene)-aromatic, -C(O)-aromatic, S(O)₂-aromatic and -S(O)₂-(C₁-C₆ alkylene)-aromatic, wherein each carbon of the aromatic ring may be optionally substituted with an X substituent; and

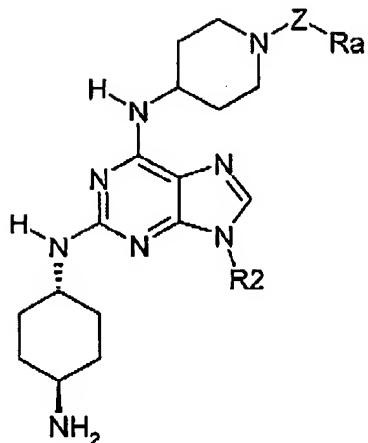
where phenyl is substituted with one to five substituents independently selected from the group consisting of hydrogen, halogen, methylenedioxy, C₁-C₈ alkyl alkylene, C₂-C₁₀ cycloalkyl, C₁-C₈ alkoxy, OH, CY₃, OCY₃, CO₂R₃, CN, NO₂, COR₃, NR₄R₅, SR₃, CO-NR₄R₅, and NH-C(O)-R₃; and

R₂ is selected from the group consisting of cyclopentyl, cyclopentenyl, and isopropyl; or a pharmaceutically acceptable salt, optical isomer, solvate or hydrate thereof.

2. (Canceled)
3. (Previously presented) A method of treating a hyperproliferative disorder in a patient by administration of a compound according to claim 1.
4. (Previously presented) The method according to claim 3, wherein the hyperproliferative disorder is a neoplastic disease.
5. (Previously presented) The method according to claim 4, wherein the neoplastic disease is selected from the group consisting of: leukemia, carcinoma, adenocarcinoma, sarcoma, melanoma and a mixed type of neoplasm.

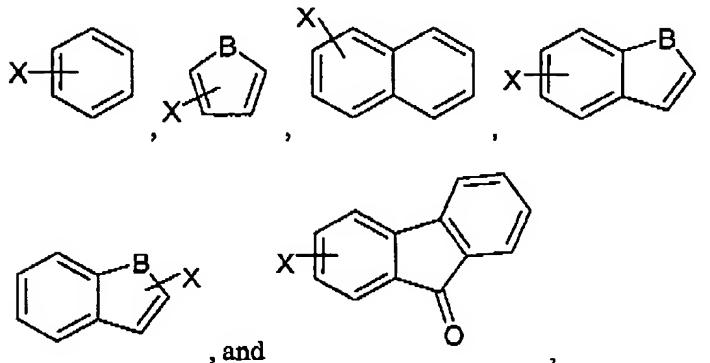
6. (Currently amended) The method according to claim 5, wherein the leukemia is selected from the group consisting of: acute lymphoblastic leukemia, chronic leukemia[[,]] and acute myeloblastic leukemia and chronic myelocytic leukemia.
7. (Currently amended) The method according to claim 5, wherein the carcinoma is selected from the group consisting of: cervix carcinoma, breast carcinoma, prostate carcinoma, esophagus carcinoma, stomach carcinoma, small intestine carcinoma, colon carcinoma, ovary carcinoma and lungs carcinoma.
8. (Currently amended) The method according to claim 5, wherein the adenocarcinoma is selected the group consisting of: cervix adenocarcinoma, breast adenocarcinoma, prostate adenocarcinoma, esophagus adenocarcinoma, stomach adenocarcinoma, small intestines adenocarcinoma, colon adenocarcinoma, ovary adenocarcinoma and lungs adenocarcinoma.
9. (Previously presented) The method according to claim 5, wherein the sarcoma is selected from the group consisting of: osteroma, osteosarcoma, lipoma, lipsarcoma, hemangiomas and hemangiosarcoma.
10. (Currently amended) The method according to claim 5, wherein the neoplastic disease is melanoma is-selected from the group consisting of: amelanotic melanoma and melanotic melanoma.
11. (Previously presented) The method according to claim 5, wherein the mixed type of neoplasm is selected from the group consisting of: carcinosarcoma, lymphoid tissue type, follicular reticulum, cell sarcoma and Hodgkins Disease.
12. (Currently amended) The A method of treating according to claim 3, wherein the hyperproliferative disorder is a non-neoplastic disease in a patient by administration of a compound according to claim 1.
13. (Previously presented) The method according to claim 12, wherein the non-neoplastic disease is selected from the group consisting of: allograft rejection, restinosis and an autoimmune disease.

14. (Previously presented) The method according to claim 13, wherein the autoimmune disease is selected from the group consisting of: rheumatoid arthritis, Type 1 diabetes, atherosclerosis, and asthma.
15. (Previously presented) A method of preventing apoptosis of cells in a patient by administration of a compound according to claim 1.
16. (Previously presented) The method according to claim 15, wherein the cells are neuronal cells.
17. (Previously presented) The method according to claim 15, wherein apoptosis is induced by antineoplastic agents.
18. (Previously presented) The method according to claim 15, wherein apoptosis is induced by cerebrovascular disease.
19. (Previously presented) The method according to claim 15, wherein apoptosis is induced by stroke or infarction.
20. (Cancelled)
21. (Previously presented) A method of protecting neuronal cells from damage induced by antineoplastic agents, comprising administering a compound according to claim 1.
22. (Previously presented) A method of inhibiting cyclin-dependent kinases (CDKs) by administering a compound according to claim 1.
23. (Currently amended) The method according to claim 22, wherein the CDK is a constituent of a complex selected from the group consisting of CDK1/cyclin B, CDK2/cyclin E, and CDK4/cyclin D.
24. (Previously presented) A compound according to claim 1 of the formula



- 25. (Previously presented) A compound according to claim 24 wherein Z is -C(O)-.
- 26. (Previously presented) A compound according to claim 24 wherein Z is -S(O)₂-.
- 27. (Previously presented) A compound according to claim 25 wherein R_a is selected from the group consisting of: -OR₁ and -N(R₁)(R₃).
- 28. (Previously presented) A compound according to claim 25 wherein R_a is -SR₁.
- 29. (Previously presented) A compound according to claim 27 wherein R_a is -OR₁.
- 30. (Previously presented) A compound according to claim 27 wherein R_a is -N(R₁)(R₃).
- 31. (Previously presented) A compound according to claim 1 wherein R₂ is cyclopentyl.
- 32. (Previously presented) A compound according to claim 1 wherein R₁ is -(CH₂)_nQ_p(CH₂)_nW.
- 33. (Previously presented) A compound according to claim 30 wherein R₁ is -(CH₂)_nQ_p(CH₂)_nW.

34. (Previously presented) A compound according to claim 33 wherein W is selected from the group consisting of:



where B is -O-, -S-, -NR₆-, where each carbon of the aromatic or heteroaromatic ring may be independently substituted by a nitrogen atom, and each carbon of the aromatic ring may be independently substituted with an X substituent.

35. (Previously presented) A compound according to claim 34 wherein W is phenyl, each carbon of which may be independently substituted with an X substituent.

36-44. (Canceled)

45. (New) The method according to claim 22, wherein the CDK is selected from the group consisting of CDK1-8.

46. (New) The method according to claim 45, wherein the CDK is selected from the group consisting of CDK1, CDK2 and CDK4.

47. (New) The method according to claim 23, wherein the CDK4/cyclin D is selected from the group consisting of CDK4/cyclin D1, CDK4/cyclin D2 and CDK4/cyclin D3.

48. (New) The method according to claim 47, wherein the cyclin D is cyclin D1.

49. (New) The method according to claim 6, wherein the leukemia is chronic myelocytic leukemia.